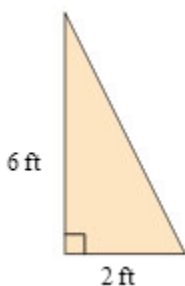


PRACTICE TEST 5 - CHAPTER 10 & 11

Beginning and Intermediate Algebra by Elayn Martin-Gay, 6th edition

****Reminder: Graphing Calculators will NOT be allowed on MATH 0362 tests****

1. Use the product rule to multiply: $\sqrt{3x} \cdot \sqrt{2}$
2. Use the quotient rule to simplify: $\sqrt{\frac{21}{100}}$
3. Use the quotient rule to simplify: $\sqrt{\frac{2x^2}{49y^8}}$
4. Use the quotient rule to divide. Then simplify if possible: $\frac{\sqrt[3]{250a^7}}{\sqrt[3]{2a}}$
5. Subtract the following radicals: $10\sqrt{75} - 2\sqrt{28} - 2\sqrt{27}$
6. Multiply. Assume that all variables represent positive real numbers: $(7\sqrt{x} - 7)(6\sqrt{x} - 4)$
7. Rationalize the denominator and simplify: $\frac{2\sqrt{3}}{\sqrt{7}}$
8. Rationalize the denominator and simplify: $\frac{2}{5 - \sqrt{10}}$
9. Solve the radical equation: $\sqrt{4x - 3} = 5$
10. Solve the radical equation: $\sqrt{5x - 4} - 2 = 2$
11. Solve the radical equation: $\sqrt{11 - x} = x + 1$
12. Find the length of the unknown side of the triangle:



13. Simplify, using i notation as needed: $\sqrt{-54}$

14. Add and write answer in a+bi form: $(2-8i)+(9+5i)$

15. Multiply and write answer in a+bi form: $5i(3-4i)$

16. Multiply and write answer in a+bi form: $2i(5-8i)$

17. Multiply and write answer in a+bi form: $(2-5i)^2$

18. Solve using the quadratic formula: $x^2+5=6x$

19. Solve using the quadratic formula: $x^2-6x+13=0$

20. Solve using the quadratic formula: $2x^2+7x-4=0$

21. Solve using the quadratic formula: $(x+4)(x+2)=7$

22. Find the vertex of the graph of this quadratic function: $f(x)=x^2+2x-8$

Practice Test 5 Chapter 10, 11 Answers

1. $\sqrt{6x}$
2. $\frac{\sqrt{21}}{10}$
3. $\frac{x\sqrt{2}}{7y^4}$
4. $15a^2$
5. $44\sqrt{3} - 4\sqrt{7}$
6. $42x - 70\sqrt{x} + 28$
7. $\frac{2\sqrt{21}}{7}$
8. $\frac{10 + 2\sqrt{10}}{15}$
9. $x = 7$
10. $x = 4$
11. $x = 2$
12. $2\sqrt{10}$
13. $3i\sqrt{6}$
14. $11 - 3i$
15. $20 + 15i$
16. $16 + 10i$
17. $-21 - 20i$
18. $x = 1$ and $x = 5$
19. $x = 3 + 2i$ or $x = 3 - 2i$
20. $x = -4$ or $x = \frac{1}{2}$
21. $x = -3 + 2\sqrt{2}$, $x = -3 - 2\sqrt{2}$
22. $(-1, -9)$